

Patent Claim**Designation:**

Kwick Skate

Claim 1

- A. Feathering under-skate for ice skates.
- B. All movable under-skate for skates in plastic/composite material and more, with flexibility up-downwards together with twisting/tilting shown in figure 1. (1) (2.) shows adapted under-skate that is either casted in one or same part figure 3. (17)
Alternatively push/click mounted with adapted profiles figure 2 (4) that will lock/clamp the parts 1 and 2 together.

Adapted skate strips Figure 1 (3) is clicked in place in adapted profile. Cross-sectional drawing Figure 2. (1) Flexible strips holder Figure 2 (1) and skate strips Figure 2 (3).

For increased speed/friction advantages due to flexible steel strips Figure 2 (3) that is clicked ion place in adapted profile Figure 3 (1b and 1c) for all types of skates.

When skating the under-skate is flatting of/flexing showed by Figure 3 (1a) due to obliquely square-shaped profiles when all pressure/force is on one leg.

Figure 3 (1b and 1c) will flex up or downwards by the means of constringent gas/air parts 4, or alternatively spring profiles Figure 3 (5a and 5b) by increased pressure from the skater (all weight on one leg), also advantageous twisting Figure 3 (2a, 2b and 2c) for more and longer sliding surface in the longitudinal direction and in turns without restraining the turning abilities, and gives friction advantages and increased speed.

The skater can also vary the turning technique by transmitting all his weight to the front or rear on the skate, the skate will then decrease the turning radius due to air/gas parts (eventual feathering all, feathering/spring profiles 1a and 1b) that will contract Figure 4 (7a and 7b).

With equal pressure on both legs the skate will feather back to normal turning radius, Figure 4 (2) alternatively sliding surface Figure 4 (3) for example hockey skates (app. 4-6 cm).

If the skater desires it the skate can have 100% moment Figure 4 (4) at the kick-off (toe joint). Adjust the adapted brick 5 up/down stiffens it up by kg whish from skater.

Movability/flex designed in plastic/composite and the like makes it possible to turn easily, hereunder to cross-place the skate with and without speed, also with large contact surface on the ice.

As known, longer sliding surface gives considerably higher speed due to weight distribution over larger area due to friction advantages.

When the skater cut's over in a turn at high speed the skates rear and front part will flex/twist Figure 4 (2a, 2b and 2c) to normal turning radius Figure 3 together with the body without problems. Even in the sharpest turns without loosing speed due to large steel surface on the ice that turns together with the body's movement.

For adaptation to speed skating (longer skate) the construction can alternatively be stretched out Figure 4 (6a and 6b).

Gas/air parts can be replaced with bendable plastic and the like Figure 3 and the like (5a and 5b). The plastic and the like can also in these two parts be cylindrically shaped (flexing together) Figure 3 (6) to make the construction stronger and save components if necessary.

Claim 2

Figure 6 shows the under-skate without the gas/air parts alternatively arced plastic profiles that are feathering/springs in the front, rear and from the bottom side. Under-skate Figure 6 (1) mounted on the rest of the under-skate.

An adjustable alternative is sliding brick Figure 5. (1a and 1b) that is adapted in profile (4a and 4b) that has longitudinal threads (3a and 3b) and is screwed back and forth with the screw (2a and 2b) is screwed from both ends Figure 5 (2a and 2b) and makes the skate stiffer as preferred.

Alternatively the distance in the front and rear can have different distance that way the skate will press forward and the rear more together. Or the distance can be increased figure 5 (5) and increases or decreases the radius on the skate as preferred.

To adjust the flexibility is done by Figure 5 this is a screw 1 that can be screwed back and forth in the adapted profile (3a and 3b). Screwdriver is placed in the adapted hole with threads in the front or rear. 4a and 4b shows only the extra material thickness that is fixed in the rail section 3a and 3b.

Figure 6 shows the under-skate without gas/air parts, alternatively arced/movable parts in the open parts in front and rear figure 6 (2a and 2b).

The strips holder figure 6 (1) is showed mounted here without strips.